IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Noriaki TAKAKURA

Title: PROCESS SCHEDULER
               WITHOUT LONG OVERHEAD
               AND LARGE MEMORY AND
               SCHEDULING METHOD USED
               THEREIN

Appl. No.:   09/691,838

Filing Date: 10/18/2000

Examiner: K. Tang

Art Unit: 2127

INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR §1.56

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Submitted herewith on Form PTO/SB/08 is a listing of documents known to Applicant in order to comply with Applicant's duty of disclosure pursuant to 37 CFR §1.56. A copy of each listed document is being submitted to comply with the provisions of 37 CFR §1.97 and §1.98.

The submission of any document herewith, which is not a statutory bar, is not intended as an admission that such document constitutes prior art against the claims of the present application or that such document is considered material to patentability as defined in 37 CFR §1.56(b). Applicant does not waive any rights to take any action which would be appropriate to antedate or otherwise remove as a competent reference any document which is determined to be a *prima facie* art reference against the claims of the present application.

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015.662533.1

TIMING OF THE DISCLOSURE

The listed documents are being submitted in compliance with 37 CFR §1.97(d), before payment of the issue fee.

RELEVANCE OF EACH DOCUMENT

The examiner in the corresponding Japanese application stated as follows:

> In regards to the process scheduler selector unit in the invention according to Claim 1 of the present application selecting a process scheduler unit based on unique information [about] the process scheduler units, the applicant asserts that there is no reference to said unique information in Publications 1 and 2.

> However, the "unique information" therein is none other than identification information associated with each scheduler in order to discriminate one scheduler from another scheduler when there are multiple schedulers. Furthermore, in all of the inventions described in Publications 1 and 2, there are multiple schedulers for a single CPU, where, when viewed by the CPU, only one of the schedulers is operating at a given time, and in order to identify the scheduler that is operating, it is only natural that some type of identification information is assigned to each of the schedulers.

In view of this, there is no difference between the invention according to Claim 1 of the present application and the inventions described in Publication 1 and 2 in the point that the process scheduler unit is selected based on unique information.

Next, the applicant posits from Figure 1 of Publication 1 that overhead is reduced and increases in the amount of memory used are suppressed because the process of schedulers exist as processes; however, in Figure 1 of Publication 1, a scheduler is clearly different from a task, and so the scheduler cannot be said to exist as a process. Furthermore, the assertion that overhead is reduced and increases in the amount of memory used are suppressed is not based on the description in Claim 1.

In addition, the applicant asserts that the schedulers 32 and 34 are not selected by respective calls in the invention described in Publication 2, but, when viewed from the CPU, only one of the schedulers operates at a given time, and thus, naturally, there is some sort of mechanism that provides control so that one of the schedulers is used, and thus there is essentially no difference from the process scheduler selector unit selecting a process scheduler unit, such as in the invention according to Claim 1 of the present application.

Furthermore, Claim 1 contains the text that "said process scheduler unit achieves improved efficiency in processing and in executing said process scheduler that has been selected through providing notification to said user process switching unit regarding the user process that should be switched and executed"; however, because there is no specific

description in Claim 1 pertaining to increasing the efficiency of execution and processing of the process scheduler, this point is not seen as being a unique technological feature.

Let us examine Claim 2 while excluding the points examined already regarding Claim 1. In the invention according to Claim 2 of the present application, the process scheduler selector selects the process scheduler unit based on a user process flag, which indicates whether or not one of the user processes that is controlled by the process control unit is a user process that is in an executable state, in addition to basing [said selection] on the unique information that identifies the process scheduler unit; however, because there is in the first place no specification of the relative relationship between the various process scheduler units and the various process control units in the descriptions in each of the claims, no intention can be found of using the information possessed by the process control units as information for selecting a process scheduler unit, and even if there were a corresponding relationship between the two, selecting, from possible schedules, a scheduler that has a user process that is in an executable state is something which is commonly done in the applicable technical field.

Let us examine Claim 3 while excluding the points examined already regarding Claim 1 and Claim 2. In the invention according to Claim 3, the process scheduler selector unit uses the first execution address of the process scheduler programs as the information when selecting a process scheduler unit; however, when there are multiple executable programs on the computer, the identification of each program by the first execution address of each program is something which is commonly done in the applicable technical field.

An English translation of the foreign-language document is not readily available. However, the absence of such translation does not relieve the PTO from its duty to consider the submitted foreign language document (37 CFR §1.98 and MPEP §609).

Applicant respectfully requests that any listed document be considered by the Examiner and be made of record in the present application and that an initialed copy of Form PTO/SB/08 be returned in accordance with MPEP §609.

Reference JP 9502558 is in the same family of patents as U.S. Patent No. 6,148,325 submitted herewith. English language abstracts, available from Dialog, are also being submitted for the Japanese references.

STATEMENT

The undersigned hereby states in accordance with 37 CFR §1.97(e)(1) that each item of information contained in this information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three (3) months prior to filing of this Statement.

The undersigned hereby states in accordance with 37 CFR §1.704(d) that each item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart application and that this communication was not received by any individual designated in 37 CFR §1.56(c) more than thirty days prior to the filing of the information disclosure statement.
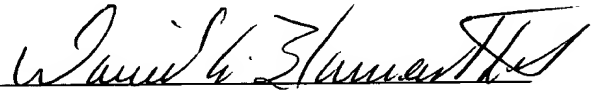
FEE

A fee in connection with submission of an information disclosure statement under 37 CFR §1.97(d) in the amount of $180.00 in accordance with 37 CFR §1.17(p) is attached.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 CFR §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741.
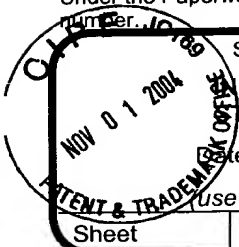
Respectfully submitted,

Date <u>October 27, 2004</u>

By _____

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Substitute for form 1449B/PTO	*Complete if Known*	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Application Number	09/691,838
Date Submitted: October 27, 2004	Filing Date	10/18/2000
	First Named Inventor	Noriaki TAKAKURA
(use as many sheets as necessary)	Group Art Unit	2127
	Examiner Name	K. Tang
Sheet	1	of	1	Attorney Docket Number	018901-0178

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	U.S. Patent Document Number	Kind Code[2] (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	A1	6,148,325		Schmidt et a.	11/14/2000	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document Office[3]	Number[4]	Kind Code[5] (if known)	Name of Patentee or Applicant of Cited Documents	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T[6]
	A2	JP	9-502558		Microsoft Corp	3/11/1997		Abs
	A3	JP	63-261433		Matsushita Electric Ind Co Ltd	10/28/1988		Abs

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[6]

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] Unique citation designation number. [2]See attached Kinds of U.S. Patent Documents. [3]Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). [4]For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [5]Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. [6]Applicant is to place a check mark here if English language Translation is attached.

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CERTIFICATE OF MAILING

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P.O. Box 1450
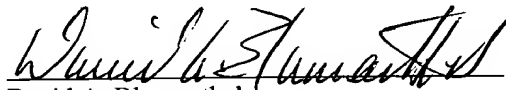Alexandria, VA 22313-1450

Commissioner:

      I hereby certify that the following paper(s) and/or fee along with any attachments referred to or identified as being attached or enclosed are being deposited with the United States Postal Service as First Class Mail under 37 C.F.R. § 1.8(a) on the date of deposit shown below with sufficient postage and in an envelope addressed to the Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450.

    1.   Information Disclosure Statement
    2.   PTO SB08 form (3 references enclosed)
    3.   Check No. 870957 ($180) for IDS fee
    4.   Certificate of Mailing

Respectfully submitted,

October 27, 2004
Date

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